

# SANDPOINT WATER DEPARTMENT (1090121) SOURCE WATER ASSESSMENT REPORT

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October 25, 2000



## State of Idaho Department of Environmental Quality

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## Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. This assessment is based on a land use inventory of the designated assessment area and sensitivity factors associated with the watershed characteristics.

This report, *Source Water Assessment for Sandpoint Water Department (1090121)*, describes the public drinking water system, the zone boundary of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The Sandpoint Water Department drinking water system consists of two surface water intakes. Water is generally drawn from Little Sand Creek with backup provided from Lake Pend Oreille primarily during the summer months.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Sandpoint Water Department’s source water protection activities should be site-specific. Protection efforts for the Little Sand Creek intake should be focused on minimizing the amount of turbidity within the watershed by carefully monitoring and regulating logging and road-building activities. Protection efforts are already underway in the Little Sand Creek watershed. The city of Sandpoint owns approximately 55% of the watershed and attempts to purchase more land within the watershed on an annual basis. The City of Sandpoint has already commissioned a Watershed Management Plan, completed by Inland Forest Management in 1992. This study focused solely on the Little Sand Creek watershed. It would be prudent to also have a study completed for the Lake Pend Oreille watershed or a portion thereof. Protection efforts for this watershed should be aimed at reducing the possibility of contaminant discharges from the many small businesses located within the designated source water area. In this case, partnerships with state and local agencies, industry groups and small business owners should be established and are critical to success. Due to the fairly short time associated with the movement of surface waters, source water protection activities should be aimed at short-term management strategies with the development of long-term management strategies to counter any future contamination threats.

A community with a fully developed source water protection program will incorporate many strategies. For assistance in developing protection strategies please contact your regional IDEQ office or the Idaho Rural Water Association.



# SOURCE WATER ASSESSMENT FOR SANDPOINT WATER DEPARTMENT

## Section 1. Introduction- Basis for Assessment

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area, a map showing the entire watershed contributing to the delineated area and the inventory of significant potential sources of contamination identified within the delineated area are attached.

### Background

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area and sensitivity factors associated with the intakes and watershed characteristics.

### Level of Accuracy and Purpose of the Assessment

Since there are over 2,900 public water sources in Idaho, there is limited time and resources to accomplish the assessments. All assessments must be completed by May of 2003. An in-depth, site-specific investigation of each significant potential source of contamination is not possible. **Therefore, this assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The ultimate goal of the assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. The Idaho Department of Environmental Quality (IDEQ) recognizes that pollution prevention activities generally require less time and money to implement than treatment of a public water supply system once it has been contaminated. IDEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.



## **Section 2. Conducting the Assessment**

### **General Description of the Source Water Quality**

Sandpoint Water Department serves a community of approximately 8000 people. Most of these people reside within the city of Sandpoint, which is located on the north end of Lake Pend Oreille, in Bonner County, Idaho. The Sandpoint Water Department public drinking water system is comprised of two drinking water intakes.

Sandpoint Water Department recently completed upgrades to the drinking water system, bringing both intakes into compliance with the Surface Water Treatment Rule. In recent years surface water intakes in the drinking water system have not encountered any significant water quality problems.

### **Defining the Zones of Contribution- Delineation**

To protect surface water systems from potential contaminants, the EPA required that the entire drainage basin be delineated upstream from the intake to the hydrologic boundary of the drainage basin (U.S. EPA, 1997b). The EPA recognized that an intake on a large water body could have an extensive drainage basin. Therefore, the EPA recommended that large drainage basins be segmented into smaller areas for the purpose of implementing a cost-effective potential contaminant inventory and susceptibility analysis. The delineation process established the physical area around an intake that became the focal point of the assessment. The process included mapping the entire drainage basin in the case of intakes located on small streams. For intakes located on lakes, buffer zones extend 500 ft. from the shoreline around the circumference of the lake. In addition to the buffer zone around the lake itself, creeks and rivers that discharge within the 500-ft. buffer will also have a buffer zone delineated. This buffer zone also extends from where the creek or river flows into the lake and extends up tributaries to the remainder of the 25-mile boundary, or the 4-hour streamflow time-of-travel boundary, whichever is greater.

In addition to the source water delineation for some systems, IDEQ has included a 24-hour emergency response delineation to facilitate emergency-response activities. If a potential contaminant spills directly into a water body, the drinking water utility needs appropriate notification in order to turn off an intake, or switch to an alternative source. For each river or stream intake, the upstream emergency-response distance was calculated from the 24-hour streamflow time-of-travel. This 24-hour streamflow was based on average seasonal flow rates. This delineation was not necessary in the case of intakes located in small drainages as water drains from the watershed boundary to the intake at a rate greater than the 24-hour streamflow time-of-travel. For lakes, the process was not necessary, as the entire water surface area of the lake along with a 500' buffer around the lake will be included in the delineation.

The delineated source water assessment area for the Little Sand Creek intake can best be described as shield-like shape extending from the intake on Little Sand Creek to the watershed boundary on all sides. The delineated source water area for the Lake Pend Oreille intake encompasses the entire Lake Pend Oreille watershed, extending well into the state of Montana. The actual data used by IDEQ in determining the source water assessment delineation area are available upon request.



## **Identifying Potential Sources of Contamination**

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of surface water contamination. The locations of potential sources of contamination within the delineation areas were obtained by field surveys conducted by IDEQ and from available databases.

The dominant land use in the area surrounding the Little Sand Creek intake is undeveloped forestland. The dominant land use in the vicinity of the Lake Pend Oreille intake is urban, most of which is part of the city of Sandpoint.

Land use within Sandpoint city limits consists of residential homes, small businesses, and light manufacturing. Homes within Sandpoint are connected to a sewer system, while homes outside of town operate with individual septic systems.

It is important to understand that a release may never occur from a potential source of contamination provided they are using best management practices. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination.

These involve educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply intake.

## **Contaminant Source Inventory Process**

A two-phased contaminant inventory of the study area was conducted during the spring and summer of 2000. The first phase involved identifying and documenting potential contaminant sources within the Little Sand Creek and Lake Pend Oreille source water assessment areas through the use of computer databases and Geographic Information System (GIS) maps developed by IDEQ. The second or enhanced phase of the contaminant inventory involved conducting an on-the-ground identification of potential sources and validation of sources identified in phase one. This task was undertaken with the assistance of Mr. Kody Van Dyk.

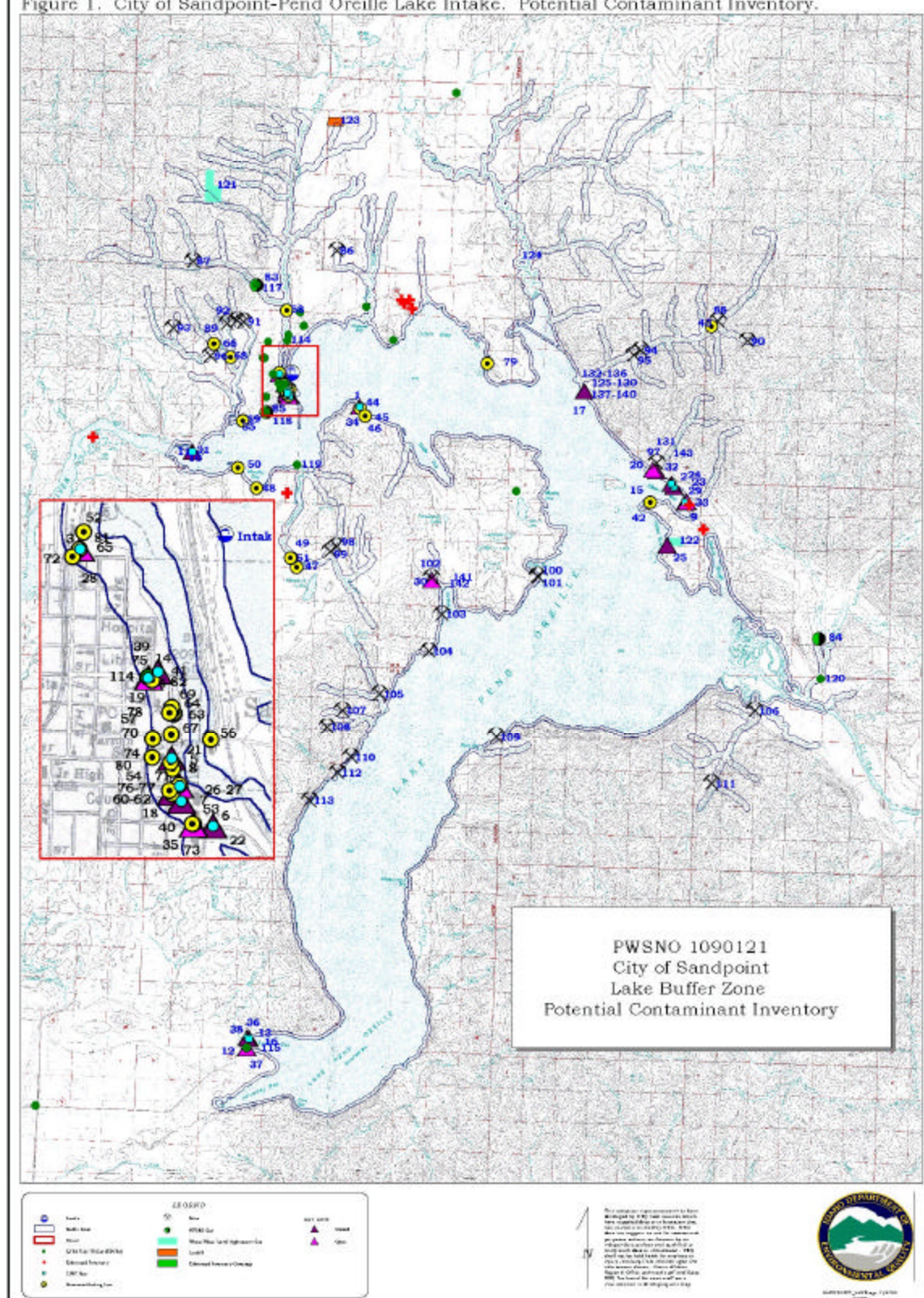
A total of 143 potential contaminant sites are located in the delineated source water area for the Lake Pend Oreille intake. (Figure 1, Table 1). Included in this inventory are enhanced contaminant inventory sites identified by other public water systems located in the source water area. Most of the potential contaminant sources within the delineated source water area for the Lake Pend Oreille intake are located in or around the city of Sandpoint. Additionally, for the Lake Pend Oreille intake, significant potential contaminant sources located in the watershed but outside of the buffer zone have also been identified and are shown in Figure 2. These are listed by type in Table 2. A total of five potential contaminant sites are located within the delineated



source water area for the Little Sand Creek intake. (Figure 3, Table 3). IDEQ has made an effort to identify all of the *possible* sources of contamination within the source water area. IDEQ realizes that many of the sites identified in the source water areas for systems drawing from large surface waters are not likely to prove threatening to drinking water intakes outside of the immediate vicinity.



Figure 1. City of Sandpoint-Pend Oreille Lake Intake. Potential Contaminant Inventory.





PWSNO 1090121  
City of Sandpoint  
Lake Pend Oreille Intake  
Potential Contaminant Inventory

### LEGEND

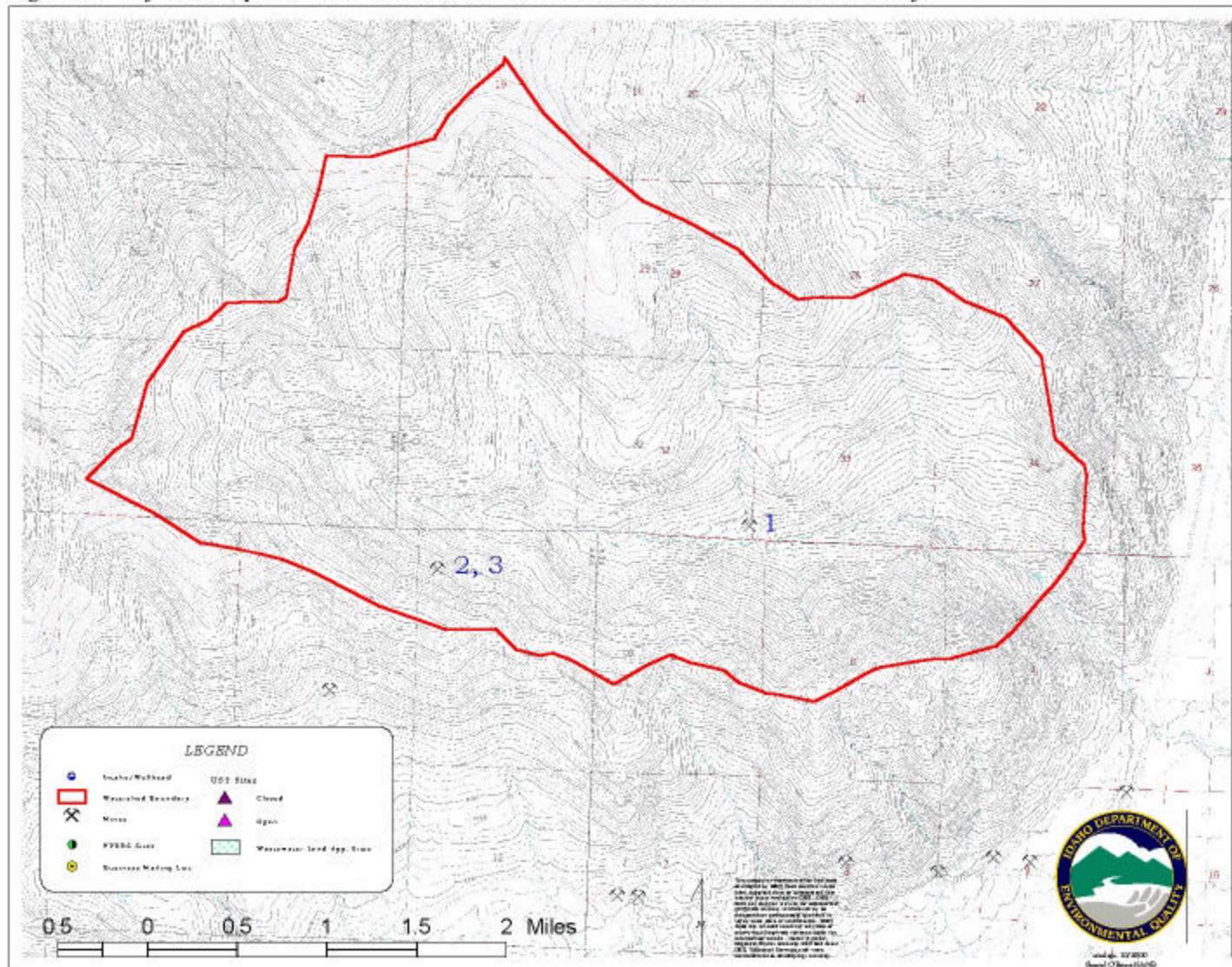
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- A map of Montana with a red dot in the northwest corner labeled "Glacier House". The word "Montana" is written in the center of the state, and "Idaho" is written to the southwest.



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Figure 3. City of Sandpoint Little Sand Creek Intake. Potential Contaminant Inventory.





**Table 1. Sandpoint Water Dept.- Lake Pend Oreille Intake Potential Contaminant Inventory**

SITE #	Source Description	Source of Information	Potential Contaminants
1	LUST	Database Search	VOC, SOC
2	LUST	Database Search	VOC, SOC
3	LUST	Database Search	VOC, SOC
4	LUST	Database Search	VOC, SOC
5	LUST	Database Search	VOC, SOC
6	LUST	Database Search	VOC, SOC
7	LUST	Database Search	VOC, SOC
8	LUST	Database Search	VOC, SOC
9	LUST	Database Search	VOC, SOC
10	LUST	Database Search	VOC, SOC
11	LUST	Database Search	VOC, SOC
12	LUST	Database Search	VOC, SOC
13	LUST	Database Search	VOC, SOC
14	LUST	Database Search	VOC, SOC
15	LUST	Database Search	VOC, SOC
16	LUST	Database Search	VOC, SOC
17	UST	Database Search	VOC, SOC
18	UST	Database Search	VOC, SOC
19	UST	Database Search	VOC, SOC
20	UST	Database Search	VOC, SOC
21	UST	Database Search	VOC, SOC
22	UST	Database Search	VOC, SOC
23	UST	Database Search	VOC, SOC
24	UST	Database Search	VOC, SOC
25	UST	Database Search	VOC, SOC
26	UST	Database Search	VOC, SOC
27	UST	Database Search	VOC, SOC
28	UST	Database Search	VOC, SOC
29	UST	Database Search	VOC, SOC
30	UST	Database Search	VOC, SOC
31	UST	Database Search	VOC, SOC
32	UST	Database Search	VOC, SOC
33	UST	Database Search	VOC, SOC
34	UST	Database Search	VOC, SOC
35	UST	Database Search	VOC, SOC
36	UST	Database Search	VOC, SOC
37	UST	Database Search	VOC, SOC
38	UST	Database Search	VOC, SOC
39	UST	Database Search	VOC, SOC
40	UST	Database Search	VOC, SOC
41	UST	Database Search	VOC, SOC
42	General Contractor	Database Search	VOC, SOC
43	Tree Service	Database Search	VOC, SOC
44	Building Contractor	Database Search	VOC, SOC
45	Concrete Contractor	Database Search	VOC, SOC, Turbidity
46	Building Contractor	Database Search	VOC, SOC
47	Concrete Contractor	Database Search	VOC, SOC, Turbidity
48	Fish Hatchery	Database Search	Microbial



SITE #	Source Description	Source of Information	Potential Contaminants
49	Landscape Contractor	Database Search	VOC, SOC, Turbidity
50	Roofing Contractor	Database Search	VOC, SOC
51	Building Contractor	Database Search	VOC, SOC
52	Auto Parts and Supplies	Database Search	VOC, SOC
53	Service Station	Database Search	VOC, SOC
54	Grading Contractor	Database Search	VOC, SOC, Turbidity
55	Cranes- Wholesale	Database Search	VOC, SOC
56	Railroad	Database Search	VOC, SOC
57	Concrete Contractor	Database Search	VOC, SOC, Turbidity
58	Bridge Builder	Database Search	VOC, SOC
59	Marine Contractor	Database Search	VOC, SOC
60	Photographer	Database Search	IOC, VOC
61	Government	Database Search	VOC, SOC
62	Marina	Database Search	VOC, SOC
63	Tile/Ceramic Contractor-Dealer	Database Search	IOC, SOC, Turbidity
64	Screen Printing	Database Search	IOC, SOC
65	Service Station	Database Search	VOC, SOC
66	Building Contractor	Database Search	VOC, SOC
67	Candy and Confectionery- Manufacturer	Database Search	VOC, IOC
68	Woodworkers	Database Search	IOC, SOC
69	Photo Finishing-Retail	Database Search	IOC, VOC
70	Printers	Database Search	IOC, SOC
71	Building Contractor	Database Search	VOC, SOC
72	Auto Parts and Supplies	Database Search	VOC, SOC
73	General Contractor	Database Search	VOC, SOC
74	Sign Manufacturer	Database Search	IOC, SOC
75	Brewers	Database Search	VOC, IOC
76	General Contractor	Database Search	VOC, SOC
77	Photographs- Stock	Database Search	IOC, VOC
78	Fire Department	Database Search	VOC, SOC
79	Excavating Contractor	Database Search	VOC, SOC, Turbidity
80	Newspaper Publisher	Database Search	IOC, SOC
81	Truck Renting and Leasing	Database Search	VOC, SOC
82	Photographers- Portrait	Database Search	IOC, SOC
83	NPDES	Database Search	VOC, SOC, IOC, Turbidity
84	NPDES	Database Search	VOC, SOC, IOC, Turbidity
85	NPDES	Database Search	VOC, SOC, IOC, Turbidity
86	Mine- Sand and Gravel	Database Search	Turbidity
87	Mine- Sand and Gravel	Database Search	Turbidity
88	Mine- Lead	Database Search	IOC
89	Mine- Stone	Database Search	Turbidity
90	Mine	Database Search	IOC
91	Mine- Gold	Database Search	IOC
92	Mine	Database Search	IOC
93	Mine- Sand and Gravel	Database Search	Turbidity
94	Mine- Gold	Database Search	IOC
95	Mine- Gold	Database Search	IOC
96	Mine- Sand and Gravel	Database Search	Turbidity
97	Mine	Database Search	IOC



SITE #	Source Description	Source of Information	Potential Contaminants
98	Mine- Sand and Gravel	Database Search	Turbidity
99	Mine	Database Search	IOC
100	Mine- Lead	Database Search	IOC
101	Mine- Copper	Database Search	IOC
102	Mine- Lead	Database Search	IOC
103	Mine	Database Search	IOC
104	Mine	Database Search	IOC
105	Mine- Lead	Database Search	IOC
106	Mine- Lead	Database Search	IOC
107	Mine- Silver	Database Search	IOC
108	Mine- Silver	Database Search	IOC
109	Mine	Database Search	IOC
110	Mine	Database Search	IOC
111	Mine	Database Search	IOC
112	Mine	Database Search	IOC
113	Mine	Database Search	IOC
114	SARA	Database Search	VOC, SOC, IOC
115	SARA	Database Search	VOC, SOC, IOC
116	SARA	Database Search	VOC, SOC, IOC
117	SARA	Database Search	VOC, SOC, IOC
118	SARA	Database Search	VOC, SOC, IOC
119	SARA	Database Search	VOC, SOC, IOC
120	WLAP	Database Search	Microbial
121	WLAP	Database Search	Microbial
122	Landfill	Database Search	VOC, SOC, IOC, Turbidity
123	Golf Course	Enhanced Inventory	VOC, SOC
124	Septic/drainfield	Enhanced Inventory	Microbial
125	Railroad	Enhanced Inventory	VOC, SOC
126	Hwy 200	Enhanced Inventory	VOC, SOC
127	Septic/drainfield	Enhanced Inventory	Microbial
128	Railroad	Enhanced Inventory	VOC, SOC
129	Hwy 200	Enhanced Inventory	VOC, SOC
130	Forest Road	Enhanced Inventory	VOC, SOC
131	Transportation Corridor	Enhanced Inventory	VOC, SOC
132	Septic Tank	Enhanced Inventory	Microbial
133	Septic Tank	Enhanced Inventory	Microbial
134	Old Wellhead	Enhanced Inventory	Microbial
135	Septic Tank	Enhanced Inventory	Microbial
136	Septic Tank	Enhanced Inventory	Microbial
137	Grey Water Tank	Enhanced Inventory	Microbial
138	Septic Tank	Enhanced Inventory	Microbial
139	AST	Enhanced Inventory	VOC, SOC
140	Public Restrooms	Enhanced Inventory	Microbial
141	Vault Toilet	Enhanced Inventory	Microbial
142	Vault Toilet	Enhanced Inventory	Microbial
143	Landslide	Enhanced Inventory	Turbidity

**IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical**



**Table 2. Significant Potential Contaminants in Lake Pend Oreille Intake Watershed****Table 2a. CERCLA Sites**

SITE #	Source Description	Source of Information	Potential Contaminants
C 1	Wood Treatment	Database Search	IOC, SOC
C 2	Government	Database Search	VOC, SOC
C 3	Mining Sediment	Database Search	IOC, Turbidity
C 4	Industrial	Database Search	VOC, SOC
C 5	Industrial	Database Search	VOC, SOC
C 6	Wood Treatment	Database Search	IOC, SOC
C 7	Mine	Database Search	IOC
C 8	Mine	Database Search	IOC
C 9	Mine	Database Search	IOC
C 10	Mine	Database Search	IOC
C 11	Mining Sediment	Database Search	IOC, Turbidity
C 12	Wood Treatment	Database Search	IOC, SOC
C 13	Mine	Database Search	IOC

**Table 2b. NPDES Sites**

SITE #	Source Description	Source of Information	Potential Contaminants
N 1	Stormwater	Database Search	IOC, VOC, SOC
N 2	Stormwater	Database Search	IOC, VOC, SOC
N 3	Aquaculture	Database Search	Microbial
N 4	Aquaculture	Database Search	Microbial
N 5	Sewage Lagoon	Database Search	Microbial
N 6	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 7	Placer Mine Settling Ponds	Database Search	IOC, VOC, SOC, Microbial
N 8	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 9	Facultative Sewage Lagoon	Database Search	Microbial
N 10	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 11	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 12	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 13	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 14	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 15	Mining Area Drainage	Database Search	IOC
N 16	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 17	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 18	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 19	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 20	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 21	Feedlots	Database Search	Microbial
N 22	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 23	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 24	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 25	Total Discharge To River	Database Search	IOC, VOC, SOC
N 26	Non-Contact Heat Exchanger	Database Search	IOC, VOC, SOC
N 27	Settling Pond Effluent	Database Search	IOC, SOC
N 28	Trickling Filter Effluent	Database Search	IOC, SOC



SITE #	Source Description	Source of Information	Potential Contaminants
N 29	Activated Sludge Effluent	Database Search	IOC, SOC
N 30	Stone Sediment	Database Search	Turbidity
N 31	Stone Sediment	Database Search	Turbidity
N 32	Stone Sediment	Database Search	Turbidity
N 33	Uncontaminated Cooling Water	Database Search	IOC, VOC, SOC
N 34	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 35	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 36	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 37	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 38	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 39	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 40	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 41	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 42	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 43	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 44	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 45	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 46	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 47	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 48	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 49	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 50	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 51	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 52	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 53	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 54	Boiler Blowdown and Cooling Water	Database Search	IOC, VOC, SOC
N 55	Noncontact Cooling Water	Database Search	IOC, VOC, SOC
N 56	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 57	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 58	Feedlots	Database Search	Microbial
N 59	Facultative Sewage Lagoon	Database Search	Microbial
N 60	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 61	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 62	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 63	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 64	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 65	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 66	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 67	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 68	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 69	Lagoon, Without Significant Industry	Database Search	Microbial
N 70	Lagoon, Without Significant Industry	Database Search	Microbial
N 71	Lagoon, Without Significant Industry	Database Search	Microbial
N 72	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 73	Talc Mine	Database Search	Turbidity
N 74	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 75	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 76	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC



SITE #	Source Description	Source of Information	Potential Contaminants
N 77	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 78	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 79	Facultative Sewage Lagoon	Database Search	Microbial
N 80	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 81	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 82	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 83	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 84	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 85	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 86	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 87	Railroad	Database Search	VOC, SOC
N 88	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 89	Noncontact Cooling Water	Database Search	IOC, VOC, SOC
N 90	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 91	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 92	Water Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 93	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 94	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 95	Water Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 96	Wastewater Treatment Plant	Database Search	IOC, VOC, SOC, Microbial
N 97	Feedlots	Database Search	Microbial
N 98	Facultative Sewage Lagoon	Database Search	Microbial
N 99	Storm Water - Mining, Oil and Gas	Database Search	IOC, VOC, SOC
N 100	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 101	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 102	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 103	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 104	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 105	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 106	Storm Water - Industrial	Database Search	IOC, VOC, SOC
N 107	Storm Water - Industrial	Database Search	IOC, VOC, SOC

**Table 2c. Toxic Release Inventory Sites**

SITE #	Source Description	Source of Information	Potential Contaminants
T 1	Industrial	Database Search	IOC, VOC, SOC
T 2	Industrial	Database Search	IOC, VOC, SOC
T 3	Concrete and Fuel	Database Search	VOC, IOC, SOC
T 4	Silicon	Database Search	VOC, IOC, SOC
T 5	Industrial	Database Search	IOC, VOC, SOC
T 6	Chemical	Database Search	IOC, VOC, SOC
T 7	Industrial	Database Search	IOC, VOC, SOC
T 8	Textile	Database Search	VOC
T 9	Industrial	Database Search	IOC, VOC, SOC
T 10	Chemical	Database Search	IOC, VOC, SOC
T 11	Wood Products	Database Search	IOC, SOC
T 12	Air Base	Database Search	VOC, SOC
T 13	Stone	Database Search	IOC, Turbidity



SITE #	Source Description	Source of Information	Potential Contaminants
T 14	Industrial	Database Search	IOC, VOC, SOC
T 15	Industrial	Database Search	IOC, VOC, SOC
T 16	Wood Products	Database Search	IOC, SOC
T 17	Wood Products	Database Search	IOC, SOC
T 18	Wood Products	Database Search	IOC, SOC
T 19	Aluminum	Database Search	IOC, VOC, SOC
T 20	Mining	Database Search	IOC

**Table 3. Sandpoint Water Department- Little Sand Creek Intake Contaminant Inventory**

SITE #	Source Description	Source of Information	Potential Contaminants
1	Mine- Sand and Gravel	Database Search	Turbidity
2	Mine- Gold	Database Search	IOC
3	Mine- Sand and Gravel	Database Search	Turbidity
4	Transportation Corridor	Enhanced Inventory	VOC, SOC
5	Fire Station	Enhanced Inventory	VOC, SOC

### Section 3. Susceptibility Analyses

Significant potential sources of contamination were ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity and construction of the intake, land use characteristics, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each intake is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking.

#### Intake Construction

The construction of the Sandpoint Water Department public water system intakes directly affects their ability to protect the sources from contaminants. The Sandpoint Water Department drinking water system consists of two intakes that produce surface water for domestic and industrial uses. Water production for individual intakes is monitored and managed at separate plants, one located near the Little Sand Creek intake, the other located near the Lake Pend Oreille intake. Intake system construction scores were generally moderate, indicating that the intakes are properly constructed, but not located in infiltration galleries that would provide another degree of protection from potential contaminants.

The Little Sand Creek intake is located approximately four miles northwest of the city of Sandpoint on Little Sand Creek. The Lake Pend Oreille intake is located approximately 1/4 mile north of Sandpoint's city beach, extending 1500' into Lake Pend Oreille.

#### Potential Contaminant Source and Land Use

Both intakes rated in the moderate category for the inorganic chemical class. The Lake Pend Oreille intake rated in the moderate category for volatile organic chemicals as well, while the Sand Creek rated as low. The



Lake Pend Oreille intake also rated in the moderate category for synthetic organic chemicals, while the Little Sand Creek intake rated in the low category for these same chemicals.

In terms of the total susceptibility score, it can be seen from Table 4 that the Little Sand Creek intake showed a low susceptibility for microbial contamination and the Lake Pend Oreille intake showed a moderate susceptibility for microbial contamination.

**Table 4. Summary of Sandpoint Water Department Susceptibility Evaluation**

Intake	Contaminant Inventory				System Construction	Final Susceptibility Ranking			
	IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
Little Sand Creek	M	L	L	L	M	M	L	L	L
Lake Pend Oreille	M	M	M	M	M	M	M	M	M

H = High Susceptibility, M = Moderate Susceptibility, Low Susceptibility

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

H\* - Indicates source automatically scored as high susceptibility due to presence of either a VOC, SOC or an IOC above the Maximum Contaminant Level in the finished drinking water.

### Susceptibility Summary

The Sandpoint Water Department drinking water system is currently not threatened by significant potential sources of contamination.

## Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program is tailored to the particular local source water protection area. A community with a fully developed source water protection program will incorporate many strategies. The Sandpoint Water Department should focus protection activities on implementation of practices aimed at reducing sediment in runoff within the Little Sand Creek intake delineated source water area. Because road building activities have lead to high levels of turbidity in the source water in the past, future activities of this nature should be monitored closely. A survey of road conditions above the intake may also be warranted. The Watershed Management Plan completed in 1992 may be a good starting point for protection activities within the Little Sand Creek watershed. Protection activities for the Lake Pend Oreille intake should focus on preventing contaminant releases from small businesses within the immediate vicinity of the intake. This might



be best accomplished by forming partnerships with state and local agencies, industry groups and small business owners. Sandpoint Water Department may also want to consider completing a watershed management plan for the Lake Pend Oreille intake. Due to the relatively short time involved with the movement of surface water, source water protection activities should be aimed at short-term management strategies with an emphasis on dealing with long-term future impacts from these same sources.

**Assistance**

Public water suppliers and others may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Coeur d’Alene Regional IDEQ Office (208) 769-1422

State IDEQ Office (208) 373-0502

Website: <http://www.deq.state.id.us>



## **References Cited**

Inland Forest Management, Inc., 1992. City of Sandpoint Watershed Management Plan.



# Attachment A

## Sandpoint Water Department Susceptibility Analysis Worksheet



The final scores for the susceptibility analysis were determined from the addition of the Potential Contaminant Source/Land Use Score and Source Construction Score.

Final Susceptibility Scoring:

0 - 7    Low Susceptibility

8 - 15   Moderate Susceptibility

> 16    High Susceptibility



Surface Water Susceptibility Report

Public Water System Name : SANDPOINT WATER DEPT

Intake : SAND CREEK

Public Water System Number 1090121

10/25/00 11:43:20 AM

## 1. System Construction

SCORE

Intake structure properly constructed	YES	0
Infiltration gallery or well under the direct influence of Surface Water	NO	2

Total System Construction Score 2

## 2. Potential Contaminant Source / Land Use

IOC Score	VOC Score	SOC Score	Microbial Score
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Predominant land use type (land use or cover)	BASALT FLOW, UNDEVELOPED, OTHER	0	0	0	0
Farm chemical use high	NO	0	0	0	
Significant contaminant sources *	NO				
Sources of class II or III contaminants or microbials	present within the small stream segment of	3	2	1	0
Agricultural lands within 500 feet	NO	0	0	0	0
Three or more contaminant sources	NO	0	0	0	0
Sources of turbidity in the watershed	YES	1	1	1	1

Total Potential Contaminant Source / Land Use Score 7 5 3 1

## 3. Final Susceptibility Source Score

9 7 5 3

## 4. Final Source Ranking

Moderate Moderate Low Low

\* Special consideration due to significant contaminant sources  
The source water has no special susceptibility concerns



## POTENTIAL CONTAMINANT INVENTORY

### LIST OF ACRONYMS AND DEFINITIONS

**AST (Aboveground Storage Tanks)** – Sites with aboveground storage tanks.

**Business Mailing List** – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

**CERCLIS** – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as **ASuperfund** is designed to clean up hazardous waste sites that are on the national priority list (NPL).

**Cyanide Site** – DEQ permitted and known historical sites/facilities using cyanide.

**Dairy** – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

**Deep Injection Well** – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

**Enhanced Inventory** – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

**Floodplain** – This is a coverage of the 100year floodplains.

**Group 1 Sites** – These are sites that show elevated levels of contaminants and are not within the priority one areas.

**Inorganic Priority Area** – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

**Landfill** – Areas of open and closed municipal and non-municipal landfills.

**LUST (Leaking Underground Storage Tank)** – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

**Mines and Quarries** – Mines and quarries permitted through the Idaho Department of Lands.)

**Nitrate Priority Area** – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

**NPDES (National Pollutant Discharge Elimination System)**

– Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

**Organic Priority Areas** – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

**Recharge Point** – This includes active, proposed, and possible recharge sites on the Snake River Plain.

**RICRIS** – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

**SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities)** – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

**Toxic Release Inventory (TRI)** – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

**UST (Underground Storage Tank)** – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

**Wastewater Land Applications Sites** – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

**Wellheads** – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.